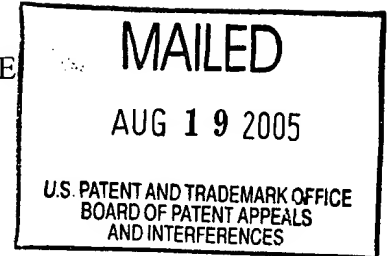


The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES



Ex parte JOHN FREEL, JOSEPH S. WELSTAND,
WILLIAM R. SCOTT, MICHAEL J. FUCHS and SCOTT R. BRUNDAGE

Appeal No. 2005-1312
Application 09/490,147

ON BRIEF

Before WARREN, KRATZ and TIMM, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner finally rejecting claims 1 through 3, 8 through 17, 22 through 28, 30 through 32, 37 through 42, 44 through 48, 52 through 59, 63 through 70 and 74 through 76, all of the claims in the application.

Claim 1 illustrates appellants' invention of an unleaded gasoline fuel, and is representative of the claims on appeal:

1. An unleaded gasoline fuel, which is substantially free of oxygenates and has a Reid vapor pressure less than 7.5 psi;

a sulfur content of less than 10 ppmw;

an aromatics content of greater than 25 volume percent but no greater than 30 volume percent; and

the fuel composition fails the California Predictive Model requirements for emissions.

The references relied on by the examiner are:

Jessup et al. (Jessup)	5,288,393	Feb. 22, 1994
Kaneko et al. (Kaneko)	5,401,280	Mar. 28, 1995

The examiner has advanced the following grounds of rejection on appeal:

claims 1 through 3, 8 through 17, 22 through 28, 30 through 32, 37 through 42, 44 through 48, 52 through 59, 63 through 70 and 74 through 76 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jessup in view of Kaneko (answer, pages 3-4 and 8); and

claims 1 through 3, 8 through 17, 22 through 28, 30 through 32, 37 through 42, 44 through 48, 52 through 59, 63 through 70 and 74 through 76 stand rejected as specified in the answer as unpatentable over certain claims in certain United States Patents, and provisionally rejected as specified in the answer as unpatentable over certain claims in certain applications under the judicially created doctrine of obviousness-type double patenting (pages 4-8), the involved patents and applications also appearing in a listing in the brief (pages 4-5).¹

Appellants state that the appealed claims “stand or fall together” (brief, page 5). Thus, we decide this appeal based on appealed claim 1 with respect to the ground of rejection under § 103(a), and on no particular claim with respect to the grounds of rejection based on the judicially created doctrine of obviousness-type double patenting in view of appellants’ position (*see* brief, pages 8-9). 37 CFR § 1.192(c)(7) (2003); *see also* 37 CFR § 41.37(c)(1)(vii) (September 2004).

We affirm.

Rather than reiterate the respective positions advanced by the examiner and appellants, we refer to the answer and to the brief for a complete exposition thereof.

Opinion

Our consideration of the ground of rejection under § 103(a) requires that we initially interpret appealed claim 1 by giving the terms thereof the broadest reasonable interpretation in their ordinary usage as they would be understood by one of ordinary skill in the art in light of the written description in the specification, including the drawings, as interpreted by this person,

¹ We note that the official electronic records of the USPTO show that the status of a number of the applications cited by the examiner has changed. For example, application 09/603,585 (answer, page 6) is shown in the USPTO electronic as now abandoned and thus, the ground of rejection based thereon is moot. The electronic records further show that application 10/927,191 is a continuation of application 09/603,585. The examiner should review the status of the cited applications in the event of further prosecution of the appealed claims subsequent to the disposition of this appeal.

unless another meaning is intended by appellant as established in the written description of the specification, and without reading into the claims any limitation or particular embodiment disclosed in the specification. *See, e.g., In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). We determine that the plain language of claim 1 specifies an unleaded gasoline fuel composition which has at least the specified properties with respect to oxygenates, Reid vapor pressure, sulfur content and aromatics content, and which fails the California Predictive Model requirements for emissions² in any respect.

We agree with the supported position advanced by the examiner that, *prima facie*, the claimed unleaded gasoline fuel encompassed by appealed claim 1 would have been obvious over the combined teachings of Jessup and Kaneko to one of ordinary skill in this art at the time the claimed invention was made. Thus, we again consider the record as a whole with respect to these grounds of rejection in light of appellants' rebuttal arguments in the brief. *See generally, In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984).

The examiner finds that Jessup would have disclosed to one of ordinary skill in this art an unleaded gasoline fuel composition which differs from that claimed with respect to aromatics content and the reference does not disclose the sulfur content of the unleaded gasoline fuel compositions taught therein (answer, pages 3-4). The examiner determines that one of ordinary skill in the art would have increased the aromatics content to claimed range with the expectation that hydrocarbon emissions would be reduced (*id.*, page 4). We observe that the examiner finds in this respect that Jessup would have taught "that hydrocarbon emissions are reduced when the aromatics content is increased" (*id.*, page 3). The examiner determines that one of ordinary skill in the art would "have modified the gasoline composition of Jessup by limiting the sulfur concentration to values within the range [of below 20 ppmw] disclosed by Kaneko because a gasoline with this amount of sulfur would not harm the exhaust gas cleaner" (*id.*, page 4). The examiner concludes that with such modifications, the unleaded gasoline fuel composition of

² See, e.g., specification, pages 7-12.

Jessup “would necessarily result in a gasoline that fails the” California Predictive Model requirements for emissions (*id.*).

Appellants submit that Jessup would not have disclosed or suggested that “control of sulfur in the gasoline of the present invention to amounts less than 10 ppmw allow one to not meet the requirements of California Predictive Model, yet still offer low emissions, particularly with regard to NO_x, in a substantially oxygen free gasoline,” and that Kaneko does not cure the deficiency of Jessup (brief, page 5). Appellants point out that Kaneko discloses a gasoline fuel composition which contains the oxygenate MTBE in the amount of at least 3 to 15 volume percent as an important part (*id.*, page 6). On this basis, appellants contend that “[o]ne of ordinary skill in the art . . . contemplating a low emission gasoline which is substantially oxygenate free, would not even consider the teachings of [Kaneko],” and thus, Kaneko teaches away from the claimed invention (*id.*). Appellants further point out that Kaneko discloses that above 50 ppmw, sulfur can damage the exhaust gas cleaner, arguing that Kaneko would motivate one of ordinary skill “to maintain the sulfur amount to less than 50,” contending that this person would not maintain the amount of sulfur “to preferable less than 20” as taught by Kaneko in order to blend “an economical gasoline” (*id.*, pages 6-7). Appellants submit that Kaneko “does not pertain to a gasoline which is substantially free of oxygenates, and thus does not provide the requisite motivation to lower the amount of sulfur to less than 10 ppmw” to obtain the advantages of the claimed gasoline fuel composition, arguing that without recognizing such advantages, “the skilled artisan would not be motivated to push the sulfur level so low in a non-oxygenated fuel, because it would be costly to do so” (*id.*, pages 7-8).

The examiner responds that Kaneko provides the motivation to reduce the sulfur in a gasoline fuel composition to protect the exhaust gas cleaner which is “reason enough for one to reduce sulfur levels to the claimed amounts” even if it is “not the same motivation that appellants assert” (answer, page 8). The examiner further contends that “the advantage of reducing sulfur would be . . . independent of oxygenate concentration,” and that the Kaneko “tables disclose gasoline with sulfur contents well below 10 ppmw,” pointing out that “the gasoline identified as IE-1 has a sulfur content of 3 ppm” (*id.*).

Appellants dispute only that part of the examiner's *prima facie* case of obviousness which involves the sulfur content limitation in claim 1. We agree with appellants that Jessup would not have taught or suggested this limitation. Indeed, we, apparently like the examiner and appellants, fail to find in Jessup any mention of sulfur content, and thus, we find that Jessup would not have taught one of ordinary skill in this art that sulfur content is a result effective variable with respect to any ingredient or combination of ingredients in gasoline fuel compositions taught in this reference.

With respect to the sulfur content of gasoline fuel compositions, we notice the well known fact that one of ordinary skill in this art would have desired to reduce the amount of sulfur in gasoline compositions for a variety of reasons known in the art. Indeed, as the examiner points out, Kaneko would have disclosed that in similar gasoline fuel compositions to those of Jessup, the sulfur content is preferably under 20 ppmw for the sole purpose of maintaining the exhaust gas cleaner, and illustrates gasoline compositions that contain 2, 3 and 4 ppmw sulfur (col. 3, ll. 16-19; col. 8, Tables 2-4).

As was the case with Jessup, we find no disclosure in Kaneko which links sulfur content to any other aspect of the gasoline fuel compositions disclosed in this reference, and thus, there is no teachings in this reference that sulfur content is a result effective variable in this respect. We are not persuaded otherwise by appellants' arguments with respect to the importance of the content of the oxygenate MTBE to the gasoline fuel compositions of Kaneko. Indeed, Kaneko discloses that a "serious problem is that MTBE tends to increase nitrogen oxides (NO_x) in exhaust gas" (col. 1, ll. 53-55), making no mention of sulfur content in this respect.

Therefore, we find substantial evidence in the combined teachings of Jessup and Kaneko supporting the examiner's position that one of ordinary skill in this art would have modified the gasoline fuel compositions of Jessup by using low sulfur content in the reasonable expectation of successfully protecting the exhaust gas cleaner to the extent of the low ppmw shown in the Kaneko Tables 2-4. *See In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988) ("The consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that [the claimed process] should be carried out and would have a reasonable likelihood of success viewed in light of the prior art.

[Citations omitted] Both the suggestion and the expectation of success must be founded in the prior art, not in the applicant's disclosure.”); *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981)(“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.”). This result, as the examiner argues, is sufficient reason to modify the gasoline fuels of Jessup by using a sulfur content of less than 10 ppmw even though that is not the reason submitted by appellants for arriving at the sulfur content of the claimed gasoline fuel compositions encompassed by appealed claim 1. *See, e.g., In re Dillon*, 919 F.2d 688, 692-94, 16 USPQ2d 1897, 1901-02 (Fed. Cir. 1990) (*en banc*).

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in the combined teachings of Jessup and Kaneko with appellants' countervailing evidence of and argument for nonobviousness and conclude that the claimed invention encompassed by appealed claims 1 through 3, 8 through 17, 22 through 28, 30 through 32, 37 through 42, 44 through 48, 52 through 59, 63 through 70 and 74 through 76 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

We summarily affirm the grounds of rejection collectively encompassing all of appealed claims 1 through 3, 8 through 17, 22 through 28, 30 through 32, 37 through 42, 44 through 48, 52 through 59, 63 through 70 and 74 through 76 under the judicially created doctrine of obviousness-type double patenting because appellants do not contest this ground of rejection, stating the intention that “once allowable subject matter is deemed to exist in the subject application, . . . Terminal Disclaimers will be provided to overcome the double patenting rejections” (brief, page 8).

The examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (September 2004).

AFFIRMED

[Handwritten signature]

CHARLES F. WARREN
Administrative Patent Judge

Pt. F. Knab

PETER F. KRATZ
Administrative Patent Judge

Catherine M. Turner

CATHERINE TIMM
Administrative Patent Judge

BOARD OF PATENT APPEALS AND INTERFERENCES

Appeal No. 2005-1312
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